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From the SCS Chief

New Initiatives Mean More Conservation

The new conservation initiatives for 1984 announced by Secretary of Agriculture John Block promise substantial soil and water savings.

One initiative devotes \$20 million of Agricultural Conservation Program funds to help farmers and ranchers convert to grass or trees the highly erodible acres they put into the acreage conservation reserve.

Our land treatment experts believe that this pilot program alone could help to finance the conversion of up to 500,000 acres of cropland and save up to 7½ million tons of soil per year for every year that the land stays in grass or trees.

Like all of the initiatives announced by the Secretary, this will take cooperation and coordination among several U.S. Department of Agriculture agencies—the Agricultural Stabilization and Conservation Service, the Soil Conservation Service, the Forest Service, and the Extension Service.

Other initiatives for 1984 include encouraging farmers in the Palouse region of Oregon, Washington, and Idaho to leave erodible land in protective grasses and legumes by making it eligible as conservation acreage reserve under 1984 farm programs; expanding targeting of conservation assistance to critical erosion and water-short areas in 45 States and the Caribbean area; and advancing resource conservation through special campaigns and projects led by Food and Agriculture Councils (FAC's).

Also, the Department will hold a roundtable discussion on conservation aspects of 1985 farm bill strategy at my farm in Matthews, Mo., in April, and a national conference on conservation tillage technology in Nashville, Tenn., in October.

These actions reflect a growing concern about soil and water conservation in the Nation and a growing commitment in the Department to better coordinate its commodity programs with its soil and water conservation objectives.

I urge each SCS employee to make his or her own personal commitment to the success of these initiatives.



Cover: In cooperation with other USDA, Federal, State, and local agencies, the Soil Conservation Service is involved in conservation education with many youth groups, including the Boy Scouts. See articles beginning on page 3 (Photo, Tim McCabe, visual information specialist, Public Information, SCS, Washington, D.C.)

John R. Block
Secretary of Agriculture

Peter C. Myers, Chief
Soil Conservation Service

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Editor, Judith E. Ladd

Associate Editor, Nancy M. Garlitz

Assistant Editor, Donald L. Comis

Editorial Assistant, Ann P. Serota

Design Consultant, Christopher Lozos

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Conservation Education

Conservation Education Winners

The National Association of Conservation Districts (NACD) and Allis-Chalmers Corporation have announced the winners of their 1983 Environmental Education Awards Program. The program is open each year to full-time teachers in grades K-12 in the United States and its territories and the Nation's 2,950 soil and water conservation districts. The purpose of the contest is to emphasize the value of conservation education in the schools and to recognize the most outstanding conservation education programs developed by teachers and districts across the Nation.

Winning Teachers

Helping students construct a prairie area for an outdoor classroom at a Seward, Nebr., high school is one major accomplishment of Jim Landon, an award-winning biology teacher. "Environmental education is not just a transfer of facts, but a way of life," said Landon, who has been named 1983 Teacher of the Year.

Landon will receive \$1,000 and an all-expense paid trip to the NACD National Convention, February 5-9, 1984, in Denver, Colo. He was one of seven regional winners who competed for top honors in the national awards program.

His use of an outdoor classroom and other field experiences to develop high-quality learning projects was a major reason for Landon's award. His classes hand-planted the prairie area of an outdoor classroom with seed collected from local wild prairie stands, developed a trail system through the 1/2-acre site for viewing the plants, and presented basic ecological concepts of prairies to other students. Landon involves shop classes

in making bird feeders and plant identification signs. He invites art classes to sketch the prairie area and home economics classes to make jam from the wild plums. History classes use the area as a stage for units on early settlers in the county.

In another project, Landon and his classes are surveying existing prairie in Seward County. Students record the quality, use, and species diversity of each section and are building a data base for the long-term study of prairie ecosystems. Under Landon's direction, classes are also working with the Izaak Walton League on restoring and planning wildlife habitat on land leased by the League.

Landon was nominated for national recognition by the Upper Big Blue Natural Resources District in York, Nebr.

Placing second in the contest was Carol Ann Bradley, a teacher in the Gifted/Talented Program of Special Education in Idaho Falls, Idaho.

Conducting a series of outdoor science investigations for elementary students in all schools of her Idaho Falls District is one of Bradley's outstanding contributions to conservation education. In addition, she has developed workshops to train other teachers who want to lead field studies of such topics as soil, water cycles, lava, snow, trees, or wilderness areas.

In one of these workshops, adapted from USDA's Forest Service materials, Bradley leads teachers in observing and collecting aquatic animals; predicting water quality based on the species they find; testing their predictions; measuring the streamflow and predicting the number of people who could live from it; and inferring conditions of the watershed. These experiences help teachers to find ways to use similar investigations with their own students—in classrooms and out.

An outdoor science program developed by Bradley now includes 10 different field activities for grades 3 through 8 at six outdoor study sites as well as local parks and schoolgrounds. History, science, social studies, reading,

writing, and math skills are all applied in the activities.

Bradley was nominated for the competition by the West Side Soil Conservation District of Idaho Falls, Idaho.

Regional winners in the conservation teacher category are: Northeastern region, Robert Chance, C. Milton Wright High School, Bel Air, Md.; North Central region, Kathryn Loxley, Kinnison School, Jackson, Ohio; South Central region, Sue Herring, Weatherford Elementary, Plano, Tex.; Southwestern region, Edna Lovell, Cheyenne Wells District, Cheyenne Wells, Colo.; Southeastern region, Ann Mashburn, McCluer Academy, Jackson, Miss.

Winning Districts

The LaGrange County Soil and Water Conservation District in LaGrange, Ind., was chosen 1983 Conservation District of the Year for its conservation education activities with youth and adults. Easily transported displays packed full of class activity ideas such as recording rainfall and studying puddles are features of the district's award-winning education program. "Hard work and the firm belief that tomorrow's resources rest in the hands of today's youth are at the core of the program," said George Gadson, chairperson of the LaGrange district.

The district's youth education program is strong and lively. Learning sessions about soil, water, wildlife, and forestry conservation are features of an annual field day for local fifth graders. Workshops and an environmental newsletter for teachers feature practical lesson plans and outdoor study ideas. Students at one school worked with district staff to lay out a nature trail and plant seedlings for an outdoor classroom.

Concern about how extensive irrigation and confinement cattle feeding operations are affecting local water bodies led the district to sponsor a county water sampling program. As part of the program the district offered water testing services at a local 4-H fair. In its conservation education efforts with land-

owners the LaGrange district is conducting demonstrations with a no-till planter to help farmers test this new, soil-saving, conservation tillage practice.

Runner-up in the competition is the Davie Soil and Water Conservation District in Mocksville, N.C. The Davie district's program is broad, covering outreach to schools, farm operators and owners, and local groups such as a Boy Scout Troup whose members are handicapped.

The district features an environmental awareness week in April during which a wide variety of natural resource experts present programs in the schools, and more than 25 conservation films are shown. Special projects at the school during this week have included stabilizing an eroding playground area, building bird feeders, and planting flowers. A likeable mascot, "Willie the Worm," visits county schools to give out bookmarks and encourage conservation behavior.

Each of the two top district winners will receive a plaque to recognize their achievements in conservation education at the NACD National Convention. The two conservation districts were among seven regional winners who competed for top honors in the national awards program.

Other regional winners are: Northeastern region, Cambria County Conservation District in Ebensburg, Pa.; South Central region, Pittsburg County Conservation District in McAlester, Okla.; Northern Plains region, Morton County Soil Conservation District in Mandan, N. Dak.; Southwestern region, Morgan Soil Conservation District in Fort Morgan, Colo.; Pacific region, Walla Walla County Conservation District in Walla Walla, Wash.

Sara Ebenreck,
director of communications, National Association of Conservation Districts, Washington, D.C.



Each summer the LaGrange County Soil and Water Conservation District in Indiana hosts 4-day conservation education sessions for 11- to 14-year-olds at the Oliver Lake Conservation Camp south of LaGrange, Ind. As part of their training in timber stand improvement and woodland harvesting at the camp, these students are measuring the diameter of a tree to determine how much board footage it would yield.

New District Youth Board Starts Out a Winner

By serving on conservation district youth boards, junior and senior high school students in Oklahoma are helping districts to assist land users in caring for the State's natural renewable resources. One outstanding group of young conservationists is the Pittsburg County Conservation District (CD) Youth Board in eastern Oklahoma.

In 1981, conservation district manager Mike Mass organized the board of 10 students which is modeled after the adult board that manages district business and sets priorities for conservation work. The next year, the youth group placed second in the 1982 national youth board competition sponsored by the National Association of Conservation Districts (NACD).

The contest was developed by the NACD Education and Youth Committee with the financial support of the NACD Ladies Auxiliary to recognize outstanding performance of youth boards and to encourage district officials to involve youth in the conservation of natural resources.

The Pittsburg County Youth Board was recognized for its assistance in outdoor classrooms and application of conservation practices in the field which benefited youth board members as well as the entire community.

The 10 members of the Pittsburg County youth board represent five area schools. The youths elect a chairperson, vice-chairperson, and a secretary-treasurer and meet regularly to plan activities and report their progress to the conservation district board. Mass, the youth board's advisor, provides ideas for projects but lets the students decide which they will adopt.

This past fall, youth board members planted two plots of wheat to compare conservation tillage and conventional tillage. The parents of one youth board member donated the land for the demonstration which is identified by a sign along the road. The youths will be conducting tours of the plots to publicize

the benefits of conservation tillage for erosion control.

The members of the youth board are using the experience and knowledge they have gained through their conservation activities to write reports for school, obtain school credit, and help teachers with special projects such as planting trees on Arbor Day. The Pittsburg County district provides trees to be planted on school grounds and the youth board members are in charge of making certain that the trees are properly planted. The youths also present tree-planting programs to elementary school classes.

In addition to the tree-planting programs, the youth board works with elementary school students in developing outdoor study sites. "This is an effective way to put conservation education into the schools," said Mass. The youth board also helps with an annual conservation speech, essay, and poster contest.

These 10 Pittsburg County youths are always looking for ways to improve conditions in their community. Recognizing an erosion problem at a local school, youth board members sent a letter pointing out the problem to the superintendent of schools. Within a month, repair work was underway. The youths have also taken the lead in schoolyard cleanup projects.

The youth board has conducted several fund-raising projects such as a game booth at the county fair each year to help finance their conservation activities. Some of the funds were used for the youths to travel to western Oklahoma to view conservation practices and problems in that part of the State.

Said Mass, "All of the members of the Pittsburg County's district youth board take their conservation work seriously. While learning about resource conservation themselves, these young people are also helping their community and helping other students to learn."

F. Dwain Phillips,
public affairs specialist, SCS, Stillwater, Okla.

Maple Syrup Helps District Stick to Conservation Education

The Beaver County Conservation District (CD) in western Pennsylvania, pays for most of its conservation education program by selling maple syrup, pancakes, and flour.

Each spring the Beaver County CD has a maple syrup and crafts festival that attracts thousands of visitors. Hundreds of volunteers, including senior citizens and scouting organizations, help tap the trees, gather the sap, cut firewood, boil the sap down into syrup, and operate the festival.

Even the pancake flour is ground at the festival, usually by an ancient, smoke-belching, steam-driven machine. Last year, the volunteers used a tractor-driven model.

Visitors can take a free minibus tour through the maple tree camp, which is in a rural county park. During the ride, student volunteers explain the tapping of the trees and the history of the festival.

Visitors can see the sap being boiled, see how trees are tapped, taste the sap as it comes from the tree, and learn the history of maple syrup making. A variety of local craftspeople also demonstrate their skills and sell their wares.

The festival involves a year-round commitment that reaches a feverish pace when the sap begins to flow. As long as it flows, the volunteers keep boiling it, even if they have to do it for 48 hours at a time. They cut firewood during the summer and let it season to use for building a hot fire during tapping season.

The season begins February 1, when the volunteers tap the trees and set up the 5/16-inch tubing that will carry the sap into holding tanks. Soil Conservation Service District Conservationist Jesse Council measured the hillside slopes and marked pipeline locations that would allow a smooth gravity flow of the sap to the storage tanks.

Hundreds of elementary and high school students work at the maple camp during school field trips and some of them come back to help on their own

time. The students learn the techniques and skills needed to manage the land and trees as well as how to make maple syrup. One student learned enough to start a maple syrup business on his family's farm, and earned enough to pay his way through college. Many farmers have begun hobby maple syrup operations with help from the Beaver County CD.

The profits from the festival pay for annual conservation education activities such as a tree-planting contest, a poster contest, and an outdoor school at a former Civilian Conservation Corps (CCC) camp in Raccoon State Park. Some of the outdoor school graduates are now pursuing conservation-related careers. In honor of Jerry Fogg, a recently deceased Pennsylvania deputy waterways patrolman who helped at both the outdoor school and at the maple camp, other graduates are forming a group to study water pollution in southwestern Pennsylvania.

Right now the volunteers are hoping for the correct combination of freezing and thawing weather to produce enough syrup to satisfy the more than 10,000 people they know will line up for the Seventh Annual Maple Syrup Festival on March 31 and April 1, 1984.

Larry Smith,
district manager, Beaver County Conservation District, Beaver, Pa.

A Little Money Buys a Lot of Learning

At a workshop held last summer in the Colorado Rockies, Margie Christie, conservation education coordinator at the Soil Conservation Service's South National Technical Center in Ft. Worth, Tex., showed how teachers can use the *Conserving Soil* workbook to help their students understand resource conservation. SCS published the book of teaching materials for grades 6 through 9 in 1982.

A hands-on demonstration of water erosion on bare and grass-covered slopes excited many of the 74 high school, junior high, and elementary school teachers who attended the second annual 3-day workshop at Western State College in Gunnison, Colo. Christie said they told her that they would go back to their schools and repeat the outdoor demonstration on similar slopes for their students.

Christie said that she was careful to choose inexpensive materials for the demonstration, mindful of limited school budgets. Teachers poured water from a watering can and collected runoff at the bottom of the slope in a container. They used wooden stakes and measuring tape to measure the slope. The muddy runoff from the bare slope contrasted sharply with the trickle of very clear water from the grassed slope, showing how vegetation can prevent soil erosion.

In another activity, SCS District Conservationist Ken Lair, Gunnison County, brought in a bucketful of soil. The teachers sat at tables covered with brown paper and poured soil from paper cups onto white sheets of paper for a close examination. Some teachers peered through magnifying lenses for an even closer look.

In these and other sessions, teachers assumed the role of their students and learned from other teachers who had won Colorado Conservation Teacher of the Year awards.

For example, the teachers typed at computer keyboards as Carol Bergevin showed them how to use several con-

servation education computer programs she had written. Jefferson County's outdoor laboratory for sixth graders was the topic of a slide show presented by Christopher Blakeslee, the 1982 winner of the National Association of Conservation Districts and Allis-Chalmers Teacher of the Year Award.

To earn 1 hour of graduate-level credit at Western State, most workshop participants wrote a conservation education lesson plan to use with their own students.

The workshop was sponsored by the college as well as the Colorado Association of Soil Conservation Districts, SCS, the Colorado Departments of Agriculture and Education, the Colorado Division of Wildlife, and the Gunnison Soil Conservation District (SCD).

Almost half of the teachers attended with the aid of scholarships given by many Colorado soil conservation districts, including the Gunnison SCD, which hosted the workshop. These conservation districts know their money bought a lot of conservation learning for years to come.

Lorraine Henley,
public affairs specialist, SCS, Denver, Colo.

Students Become Amateur Soil Scientists

The Crescent Soil and Water Conservation District (SWCD) in Norco, La., near New Orleans, is making the subject of soil come to life, through hands-on experiences for teachers and students.

A guide prepared by the Crescent SWCD and the Soil Conservation Service helps teachers to lead students in investigating soil as soil scientists do.

The students choose areas to study around their school, describe the plants in their chosen areas, and then take soil samples. They assign the name of a person, place, or thing as the first name of the sample. They could call it "New Orleans" or have fun and give it their own first name, or name it after their school.

Then the students identify the texture by feeling the samples, using the test procedures SCS personnel use in the field. Teachers help the students to associate how the soil feels with names such as "silty clay loam." This becomes the second name of the soil, for example, "New Orleans silty clay loam."

When they return to their classrooms, students put the soil in water-filled jars, shake vigorously, and wait 24 to 36 hours for the soil to settle in layers. By measuring the sand, silt, and clay layers and determining the percentage of each, they can accurately determine texture by following a diagram printed in the guide.

SCS and Crescent SWCD personnel help teachers and students with the outdoor part of the lesson, which may last from 45 minutes to a few hours. The staff of three, including SCS District Conservationist Charles Savant, assist with an average of 8 to 10 lessons a year.

The teacher's guide was originally prepared in 1979 by SCS Area Conservationist Danny Clement. It contains references to the SCS publication, "Teaching Soil and Water Conservation: A Classroom and Field Guide," available free through local SCS offices.

The Crescent SWCD's guide has been presented in teacher workshops at Tulane University and the University of New Orleans, given to every SWCD in the area, and used with students in 1st through 11th grades.

The Crescent SWCD board of supervisors is convinced that the best way to grow a crop of soil stewards is to take them outside and let them get their hands dirty.

The Crescent SWCD won the 1983 Goodyear Conservation Award for the most outstanding resource management program in Louisiana.

Evon F. Stevens,
information technician, Crescent Soil and Water Conservation District, Norco, La.

Community Leader and District Make an Outstanding Combination

A retired high school principal in northwestern Illinois, Florence Cook, is promoting resource conservation among people of all ages, and doing an outstanding job.

Cook became an associate director of the Lee County Soil and Water Conservation District (SWCD) in 1980, and by February 1981, she had led the development of a conservation education program called Save Our Land (SOL). Cook chose the slogan to emphasize the need to preserve important farmland from unnecessary development as well as protect soil from erosion.

Soil Conservation Service District Conservationist Robert Lowe, SWCD Chairperson Elroy Lauer, and members of the district staff helped Cook to design the program which has reached thousands of students and adults.

One feature of the SOL program is a two-projector slide/tape show on Lee County resource conservation problems such as flooding and sheet erosion and how they can be solved through the application of conservation practices. Following the slide program, 5 student members of the 23-member SOL team, organized by Cook, present a panel discussion on their resource conservation concerns. Cook adapts each SOL program to the audience.

In addition to the panel discussions, SOL team members, who range in age from 8 to 18, participate in many of the same activities as district youth boards in other soil and water conservation districts. Cook also enlists the help of Future Farmers of America members in reaching community groups and leaders with the SOL message. The program promotes proper land use and the application of conservation practices such as planting on the contour, terracing, and using conservation tillage.

In 1982, the Lee County SWCD placed first in the North Central Region in the annual competition sponsored by the National Association of Conservation

Districts and Allis-Chalmers Corporation to recognize the best district environmental education programs. Dedicated to continuing the SWCD's great progress in conservation education, Cook organized a 4-day conservation seminar for more than 20 eighth graders last June. The Division of Natural Resources of the Illinois Department of Agriculture and local agribusinesses provided the funding.

The students met with government officials on conservation concerns and made many field trips from the Green Wing Camp near Amboy, Ill., to view good cropland management practices such as conservation tillage, terracing, grassed waterways, and many more. The youth also visited a cattle finishing operation, woodlands, and recreation areas. Each participant received an SOL plaque and a small potted pine tree to show the district's appreciation of the students' interest in conservation.

Cook also organized a women's landowner association to encourage rural women to learn more about farm management skills. Cook convinced the farmer who rents 250 acres of cropland from her to grow corn and soybeans with conservation tillage. Now Cook hosts field trips to the farm to show how well conservation tillage works.

Cook's work in promoting conservation has won recognition for her and the Lee County SWCD. In February 1983, Cook was elected to the SWCD's board of directors, and she was one of 10 citizen conservationists to receive a 1983 Gulf Oil Conservation Award. The Lee County SWCD received a first place award in the 1983 Goodyear Conservation Awards Program for its outstanding resource management program.

Best of all, the SWCD's annual report showed substantial increases in the application of some conservation practices including grassed waterways, conservation tillage, and terraces.

Joyce Draper,
secretary, Lee County Soil and Water Conservation District, Amboy, Ill.

District Adopts a Mascot

Whenever Florence Cook, a district director for the Lee County Soil and Water Conservation District (SWCD) in Amboy, Ill., takes the Save Our Land (SOL) program (see preceding article) on the road, she has company—Ernie Earthworm. Ernie is plush, about 2½ feet tall, and wears a light blue T-shirt with his name printed on the front and the district's name on the back.

Ernie was only an illustration in the Lee County SWCD's newsletter before a district secretary, Hazel Reuter, made the first Ernie doll. Although Ernie cannot be found in the company of common earthworms that aerate the soil and improve its texture, he is doing his part for soil and water conservation.

Ernie Earthworm has appeared in displays at the Illinois State Fair, a farm progress show, and a conference of the Illinois Association of SWCD's. The character has been used to promote using soybean residue on the soil surface in the fall and to recruit farm operators to participate in a no-till planter program.

Ernie is an especially big hit with the county's elementary school students who have learned to associate the earthworm with conservation. The SWCD purchased T-shirts, balloons, buttons, and coloring sheets that feature Ernie and a conservation message to distribute at district functions.

The SWCD has also published a 16-page booklet, titled, "The Tale of Ernie Earthworm." Joyce Draper, another district secretary, wrote the text in which Ernie explains soil conservation in rhyme. The booklet has been distributed to more than 5,000 elementary school students in Lee County and sent to many districts in other States who have ordered copies at a nominal cost.

For the last few years, a 7-foot-tall version of Ernie Earthworm atop a float has appeared in many local parades. The float bears the slogan, "We've got it, let's keep it—our land."

High Adventure Through Conservation

This month, the National Association of Conservation Districts presents the Philmont Scout Ranch in Cimarron, N. Mex., with a 1984 Special Recognition Award for its excellent conservation education program and maintenance of conservation practices.

When most people think of the 137,000-acre Scout ranch, they think of backpacking to isolated campsites in the Sangre de Cristo Mountains and other adventures like rock climbing and panning for gold. But in addition to the outdoor adventure, Philmont offers Scouts 13½ years old and up valuable lessons in respecting and protecting natural resources.

In 1969, a conservation plan was established for the camp—which is also a working ranch—with the cooperation of several State and Federal agencies, including the Soil Conservation Service. Revised over the years, the plan is designed to enable the camp to be used for camping and backpacking and as a profitable ranching operation while protecting the fragile natural resources.

The ranch maintains a herd of several hundred cattle and about 100 buffalo as well as horses and burros which are used during the camp's summer High Adventure Program. The conservation plan includes a rotation-deferred grazing system that covers all of the camp's approximately 10,000 acres of grazing lands and supports the elk, mule deer, and antelope native to the area.

The Philmont camp has over 300 miles of trails, and conservation work for Scouts usually includes trail building or repair. Completing a 3-hour conservation project qualifies Scouts for the coveted Arrowhead Patch, and 10 hours of conservation work qualifies them for the 50-Miler Afoot and Afloat Award.

For nine Scouts from Bowie, Md., and Fairfax, Va., their 3-hour conservation project two summers ago involved finishing a short section of new trail. The Scouts leveled and smoothed the trail, constructed two bridges over small,

but heavily flowing streams, and built brush piles to provide cover for small game. A Philmont staff conservationist supervises all of the Scouts' conservation projects.

According to the camp's conservation plan, about 15,000 acres are divided into four areas that are managed to maintain and enhance the native vegetation and wildlife for backpackers to enjoy. No camping or fires are allowed in these areas. Water conservation and management are stressed at the camp where annual precipitation ranges from 30 inches in the higher elevations to 15 inches in lower-lying areas.

Resource management and conservation at the Philmont Scout Ranch have made it possible since 1941 for Scouts to backpack or ride on horseback along trails 50 to 100 miles long and take more than a week to do it. For many, this and the other outdoor adventures the camp offers are once-in-a-lifetime experiences.

Thomas W. Levermann,
public affairs specialist, Education and Publications,
SCS, Washington, D.C.

Boy Scout Camp Does Double Duty as a Tree Farm

At Camp Morrison in Linn County, Oreg., Boy Scouts of the Cascade Council have become hard-working conservationists. The Scouts are planting trees, reseeding campsites, clearing brush, and piling the debris from tree cutting at their 200-acre camp which doubles as a tree farm.

In the foothills of the Cascade Mountains, the camp's steep wooded hillsides and flat terraces along streams are used by deer, elk, bear, and other wildlife. Neal Creek, a salmon stream, flows through the camp. The stream originates on the slopes of Snow Peak and is fed by several smaller creeks, two of which feed a small lake beside the Camp Morrison lodge.

The lodge was once the site of a sawmill operated by Newton I. Morrison to whom the land which now makes up Camp Morrison was deeded in 1901. Morrison invited Boy Scouts to use the area for camping as early as 1918, and the first lodge was built in 1928. Morrison left the 200-acre site to the Boy Scouts in his will, and the Scouts took possession in 1954. Until recently, the camp was used mainly for hiking and camping.

Two years ago, concerned about making the best use of the camp, its directors began looking for help in developing programs to meet more needs of the Scouts and the surrounding community. The directors received the help that they needed through the U.S. Department of Agriculture's Soil Conservation Service and Agricultural Stabilization and Conservation Service (ASCS) and other State and local resource conservation agencies.

After first visiting the SCS area office in Albany, Oreg., the Cascade Council signed on as a cooperator with the Linn County Soil and Water Conservation District. SCS employees at the local Tangent field office worked with the council to develop a conservation plan for the camp that would expand its use and protect its natural resources.

The conservation plan includes soil information, erosion control measures on logging roads, reseeding of campsites, tree planting, construction of a small dam, and other measures. Much of the hand work needed to carry out the plan is being done by the Scouts. The dam, planned for construction, will form a 4- to 5-acre lake that can be used for recreation and as a water source for fire protection. The Scouts will reseed the sides of the structure and establish vegetation on the lake's edge. A nature center is also planned.

According to the plan, 150 acres will be used as income-producing forest land and for Scout activities. The other 50 acres will be used for future camp sites, buildings, and development. The plan also includes protecting a 600-year-old Douglas-fir tree. The tree is 240 feet

tall and marks the beginning of two nature trails which wind through forests of various ages.

SCS State Forester Jim McClinton said that most of the camp's vegetation is characteristic of the forested slopes of the west side of the Cascade Mountains. At the higher elevations, there are second-growth stands of Douglas-fir, and mixed stands of conifers are common throughout the camp. Undisturbed, these areas will eventually mature to western hemlock forests. Stands of hardwoods, with red alder dominant, are also common with Douglas-fir intermixed.

Based on his forest land evaluation, McClinton had suggested that the council register the camp with the Industrial Forestry Association of Oregon as a certified tree farm. Certification requirements include a woodland management plan which provides for maintaining or improving water quality, controlling forest diseases and insects, and increasing productivity. The Cascade Council worked with the Oregon State Department of Forestry on the plan and will receive up to 65 percent cost sharing on completed practices through the Forestry Incentives Program of ASCS. Last year, Camp Morrison became the sixth Scout camp in Oregon to be registered as a tree farm.

The council hired a private consulting forester, Jack Barringer, to help manage the newly registered tree farm. Barringer determines the best times for thinning and harvesting and develops contracts for professionals to do the work. Barringer's expertise in timber harvesting and marketing should help pay for his services to the council as well as provide funds for future development at the camp.

So far, the Scouts have planted 1,000 Douglas-fir seedlings and reseeded 10 acres of wooded area to create better camping sites. The 650 pounds of grass seed the Scouts used was donated by a local seed company. The seed was a mix of short, low-growing fescues that are shade tolerant and develop fibrous root

systems to withstand foot traffic.

In addition to their forest management work, the Scouts will be busy at the camp earning skill awards and merit badges in forestry, soil and water conservation, fish and wildlife management, and other conservation issues. In 1982, 25 Scouts earned conservation merit badges at Camp Morrison, and 62 Scouts earned environmental science badges.

For the last 6 years, a local elementary school has used the camp for outdoor learning activities. Chemeketa Community College in Salem uses the forest for their training lab for forestry students, and both the college and local high schools bring forestry club groups to the camp to learn about tree felling, tree thinning, building fire trails, and other forest management practices.

Forestry students from Oregon State University worked with the Cascade Council on developing a slide-tape show and brochure that tell about the

Camp Morrison in Linn County, Oreg., is a Boy Scout camp and a certified tree farm. Scouts from the Cascade Council help to carry out a woodland management plan by planting Douglas-fir seedlings, seeding grasses, piling brush for wildlife cover, and installing other practices. Proceeds from the tree farm help to fund Scout activities.

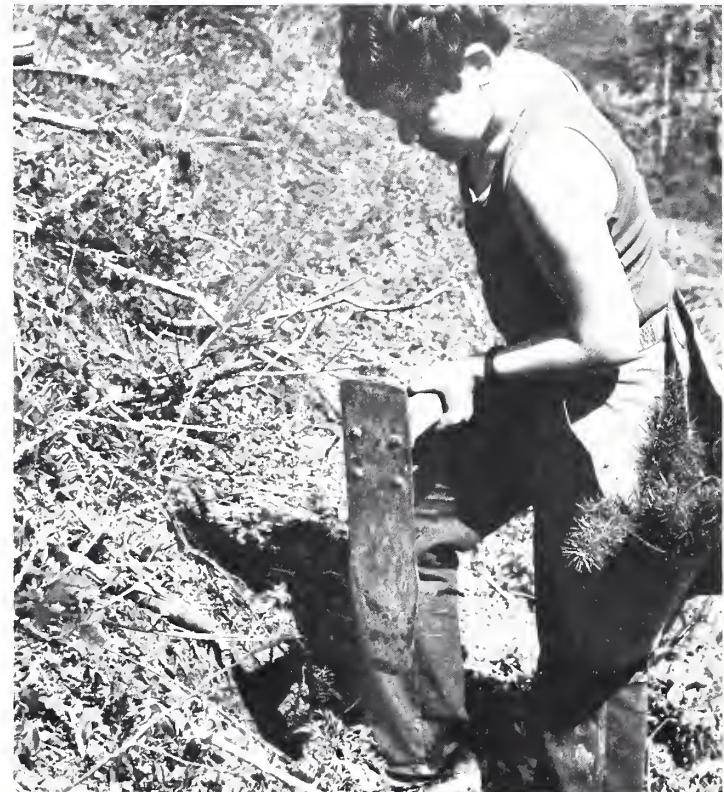
expanded uses of Morrison Camp. The students also made a three-dimensional model of the camp that can be easily transported.

The U.S. Department of Agriculture presented one of its 1982 Green Seal Awards to the Cascade Council for its outstanding conservation work at Camp Morrison. Linn County presented Camp Morrison directors with its 1982 Tree Farmer of the Year Award for providing educational opportunities in forestry.

Camp Morrison has had a long history of providing outdoor learning opportunities to Scouts. Because of the efforts of many today, the opportunities for learning about and enjoying nature at the camp are growing every day.

Lawrence P. Lilley,
range conservationist, SCS, Albany, Oreg.

Shirley Boothby,
public affairs specialist, SCS, Portland, Oreg.



State Woodland Clinic Popular With Youth

A State woodland judging contest for Future Farmers of America (FFA) and 4-H teams in Texas has become so successful that the event—called the State Woodland Clinic—will be expanded into two events next year.

The Marion-Cass Soil and Water Conservation District (SWCD) in the northeastern corner of Texas started the first Texas woodland clinic in 1957 and the clinics have spread to other Texas conservation districts since then. (See article in August 1983 issue of *Soil and Water Conservation News*.)

For the 27th annual clinic in 1983, 62 teams entered the State finals; 49 were FFA teams and 13 were 4-H teams.

Val Blanchette, who has chaired the State Woodland Clinic Committee for the past several years, said, "With four contestants per team, that's quite a group of people. We plan to have separate clinics next year for FFA and 4-H teams, although both events will be held on the same day."

Blanchette is chairman of the board of directors of the Long Leaf SWCD in Tyler County, Tex.

Teams that enter the event must win first or second place in local contests sponsored by individual soil and water conservation districts earlier in the year. Conservation districts located in the forested areas of East Texas sponsor local contests. Districts then pay \$30 for each team they send to the State finals. Districts are allowed to enter two FFA teams and two 4-H teams.

Objectives of the competition are to stress how to properly manage woodlands, to create an awareness of the value of properly managed timber, to teach methods of managing woodlands, and to learn how woodlands can be managed to enhance wildlife habitat.

The clinics are organized into 12 events, each addressing a specific forestry skill. There are three kinds of trees to identify—hardwoods, pines, and those that produce food for wildlife.

Other events include: estimating rate of growth, selective thinning, estimating tree volume, determining tree values for various wood products, wood identification, tree-soil growth relationships, choosing trees to cull for harvest, estimating productivity of woodland sites, and using a compass in the forest.

At the end of the competition, scores

from the four students in each team are tallied, but only the top three scores in each team are counted. A perfect score for an individual is 100 points and for a team, 300 points.

Joe Daniel, SCS area conservationist at Nacogdoches, Tex., said, "It's quite an honor for a team to qualify for the State clinic. We estimate that about 10,000 students in East Texas study forestry management in preparing for the local contests. The competition is so keen in the finals that we design a tough but fair contest."

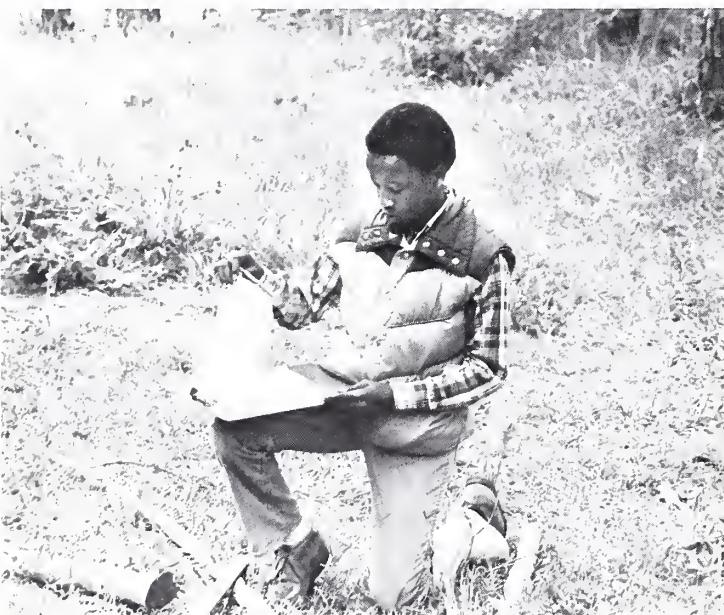
In spite of the difficult course, one student, Doug Van Devender of the winning FFA team from Cass County, Tex., scored 100 points for the first perfect score in the contest's history. There was also a 99 and a 98 score.

The Cass County FFA team won first place with a score of 276 points. The winning 4-H team, from Harrison County, Tex., just south of Marion and Cass Counties, scored 270 points.

The State Woodland Clinic Committee is composed of representatives from the Texas State Soil and Water Conservation Board, the Texas Association of Soil and Water Conservation Districts, the Northeast Texas and Deep East Texas Associations of Soil and Water Conservation Districts, SCS, and Stephen F. Austin State University at Nacogdoches, Tex.

For the last 3 years, the State finals have been conducted in Panola County, at Camp Pirtle, which is owned by the East Texas Council of the Boy Scouts of America.

Dale D. Allen,
public affairs specialist, SCS, Temple, Tex.



At the annual State Woodland Clinic in Texas, team members must call on 12 forestry skills in preparing their contest entries. The skills include estimating rate of growth, identifying tree-soil growth relationships, and estimating productivity of woodland sites.

Garden Helps Asian Refugees Adjust to New Life

Living in Providence, R.I., are 2,500 refugees from Laos in Southeast Asia. They are the Hmong (pronounced mung) and were allies of the United States in the Vietnam Conflict. In the mountains of Laos, the Hmong were self-sufficient farmers. Now, these rural people are living in a city of 150,000 people.

To help the Hmong cope with change and stress, a self-help community organization called the Hmong-Laos Unity Association was formed. One of the association's first acts was to arrange with the State of Rhode Island to lease 10 acres outside the city for a garden for the Hmong. The association then asked the Northern Rhode Island Conservation District to assist with planning the garden to protect soil and water resources.

Soil Conservation Service District Conservationist Eric Scherer developed a conservation plan for the rolling garden. Scherer worked with the association's executive director, Tia Kha (pronounced tee-a ka), the State Refugee Office, and the Rhode Island Department of Environmental Management (DEM).

The technical assistance that Scherer is providing the Hmong includes planning the location and design of access roads and aligning individual family garden plots on the contour to prevent soil erosion. Scherer is also introducing the Hmong to the use of manure on their crops, explaining acidity and alkalinity of the soil, and showing them how to add lime where needed.

To some of the garden plots, the Hmong are carrying 5-gallon buckets of water from a shallow pond. Scherer is hoping that they can develop a more efficient system based on his plan to deepen the pond and run underground pipes to a central storage area.

According to Kha, about 300 families with about six people to a family are working the garden. "They feel very fortunate to find open land only 20

minutes from the center of Providence," Kha explained.

In Laos, the Hmong grew rice and many other vegetables and raised chickens, pigs, and livestock. In their new garden, the Hmong are growing tomatoes, corn, mustard, zucchini, squash, beans, cabbage, and cucumber. They are also able to grow Chinese parsley and some of their other favorite vegetables from seed they brought from Laos.

In Laos, the Hmong were able to grow crops year round, but now they must learn how to can and preserve the food they grow. A few families now have freezers, and through the University of Rhode Island's Cooperative Extension Service, 10 families have been learning how to can food. They hope to buy pressure cookers that can be shared among many families.

The Hmong had no tractors in their country and no pesticides. In their new Rhode Island garden, at the end of the day, almost 300 people can be seen weeding. "One of the reasons that this garden prospers is the unity of the families involved," said John Finck of the State Refugee Office. "If one family can't come out to weed and water, their cousins will do it for them."

Now, the Hmong are mostly factory workers in jewelry, wire, and metal processing industries in the city. They go out to their garden during the week as their work schedules allow, but on the weekends most of them are there weeding and watering their crops, visiting with friends and relatives, picnicking, and watching the children play.

The garden project is, indeed, a cooperative venture between the conservation district, SCS, DEM, and the State Refugee Office. Rhode Island is offering refuge and a new life to the Hmong people.

Elmer Offerman,
public affairs specialist, SCS, Storrs, Conn.

"Cobblestone: The History Magazine for Young People" Dedicates an Issue to Soil

Can soil have a history? Yes, say "Cobblestone" editors, and to prove it, they've dedicated the December 1983 issue to soil.

Articles explain what soil is, how it affected American history, and what has been and is being done to conserve soil. The issue includes an article on the Dust Bowl of the thirties, with photographs showing the devastation it caused. The magazine is well illustrated throughout with black-and-white photographs, diagrams, and cartoons.

An article on soil animals includes an activity which students can follow to calculate the number of animals in 1 square foot of soil. An article on hydroponics suggests students grow bean sprouts to see how plants can grow without soil. There are conservation quizzes and a word-find puzzle to teach facts and vocabulary.

The magazine also lists additional resources for those who want to study the subject further.

This issue is available for \$2.75, postage and handling included, from Cobblestone, 28 Main Street, Peterborough, N.H. 03458.

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Send present mailing label and new address
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U.S. Department of Agriculture
Soil Conservation Service
P.O. Box 2890, Room 6117-S
Washington, D.C. 20013

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Penalty for private use, \$300

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New Publications

Exploring Wildlife Communities with Children

by Carolyn L. Kennedy

Designed to introduce the reader to the concepts of ecology, this book is written for adults who wish to share with children a special way of exploring and learning to care for the environment. It provides a variety of activities of interest to children and adults so that they may share together in the delights of discovery, understanding, and appreciation. The activities include exploring a lake or pond, hiking through a forest, investigating waterways—from streams to ocean shorelines—discovering deserts, and studying grasslands.

This easy-to-read, 72-page book is available for \$4.50 from Program Department, Girl Scouts of the U.S.A., 830 Third Avenue, New York, N.Y. 10022.

Dracons Visit Earth: To Study Food and the Land

by the Soil Conservation Society of America

This educational cartoon booklet is designed to help children, in grades 4-6, understand the relationships between food and the land and learn what can be done to help insure an adequate world food supply.

The booklet narrates the adventure of two aliens on a mission to Earth to determine if major changes in the Earth's food production system have occurred in the last 50 years. The story line is an entertaining

means for children to discover the interrelatedness of factors that affect food production, world food problems, soil and water conservation, the history of agriculture, nutrition, and the processing and distribution of food.

Single copies of the cartoon booklet are available for 75 cents; and a teacher's guide for the booklet that includes four spirit master activity worksheets is available for \$4. Substantial discounts are available on quantity purchases of the booklet and teacher's guide. To order, write Soil Conservation Society of America, 7515 Northeast Ankeny Road, Ankeny, Iowa 50021.

Water Resources Research, Problems and Potentials for Agriculture and Rural Communities

Edited by Ted L. Napier, Donald Scott, K. William Easter, and Raymond Supalla

Material in this book is based on papers presented at a symposium on water resources research, held November 1982, near Chicago, Ill. The symposium focused attention on major contributions made by researchers in water resources and identified potential areas of future research.

The book presents the history of water resources research, reviews current research, identifies potential research in water management, and outlines alternative ways to conduct needed research.

Single copies of this 247-page, hardbound book are available for \$6 from the Soil Conservation Society of America, 7515 Northeast Ankeny Road, Ankeny, Iowa 50021.

The Scientific Management of Hazardous Wastes

by C. B. Cope, W. H. Fuller, and S. L. Willetts

In this book, three independent scientists examine the results of recent research and development concerning the environmental aspects of hazardous wastes management.

The authors compare alternative technologies such as chemical treatment and incineration; and they examine risk assessment, cost implications, and public acceptance.

This handbook provides an objective assessment of the scientific and practical issues involved and makes a valuable source book for all who are concerned with hazardous wastes management, planning and regulatory control, pollution prevention, and environmental protection.

Single copies of this book are available for \$69.50 from Cambridge University Press, 32 East 57th Street, New York, N.Y. 10022.

Water-Related Technologies for Sustainable Agriculture in U.S. Arid/Semiarid Lands

by the U.S. Congress, Office of Technology Assessment

Among the options identified by the Office of Technology Assessment (OTA) as ways the U.S. Congress could help sustain agriculture in the water-short West are: stop Federal incentives that encourage plowout; establish a new U.S. Department of Agriculture office of resource coordination; convert some USDA Agricultural Research Service centers for more research on dryland and rangeland; and organize user-advisory groups for Federal research on

water-related technologies. Other options include setting up a national center for water resources research and a center to analyze water-resources data for Congress. OTA also suggests the Federal Government might help States develop computerized water-resources databases, maintain high national water-quality standards, and evaluate possible effects of future water-subsidy reforms. Other options encourage the Federal Government to resolve water rights issues and instruct the Federal land-management agencies to increase their work on water resources, especially mountain snowpacks.

The U.S. House of Representatives Committee on Agriculture requested this study. The first half of the report gives background information on the problems, and the second half discusses technological solutions. The last chapter identifies the issues and options for Congress.

This report is available for \$8.50 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Stock No. 052-003-00930-7.)

Recent Soil Surveys Published

by the Soil Conservation Service

Arizona: Coconino County.

Florida: St. Johns County.

Illinois: Bond County.

Iowa: Dallas County.

Mississippi: Tishomingo County.

Missouri: Butler County and Part of Ripley County.

New Mexico: Grant County and Lincoln County Area.

Oklahoma: Le Flore County.

Pennsylvania: Greene and Washington Counties.